In the Claims:

1-70. (Canceled).

71. (Currently Amended) ~~The system of claim 69,~~ A volatile liquid underground storage tank pressure reduction system for reducing the volume of vapor recovered during the refueling of a vehicle tank and returned to an underground storage tank in a service station environment, comprising:

an underground storage tank;

a conduit having an inlet port and an outlet port, wherein said outlet port is connected to said underground storage tank;

a fuel dispenser, comprising:

a nozzle,

a hose connected to said nozzle;

a fuel delivery line that couples to said hose and to said underground storage tank to deliver said liquid fuel through said hose and nozzle to the vehicle fuel tank;

a vapor pump;

a vapor return line contained within said hose that connects to said inlet port of said conduit;

a valve connected inline to said conduit, said valve having a valve inlet and a valve outlet;

a heat exchanger connected inline to said conduit downstream said valve outlet; and

an electronic controller electrically coupled to said valve to control the opening of said valve and electronically coupled to said vapor pump to activate said vapor pump, wherein said electronic controller is adapted to open said valve and activate said vapor pump to recover vapor expelled from the vehicle tank during refueling to pass the vapor through said inlet port and through said heat exchanger to cool the vapor and return the cooled vapor through said outlet port to said underground storage tank;

wherein said heat exchanger includes a fan to circulate outside air inside said conduit to cool the vapor.

72. (Currently Amended) ~~The system of claim 69, further comprising~~ A volatile liquid underground storage tank pressure reduction system for reducing the volume of vapor recovered during the refueling of a vehicle tank and returned to an underground storage tank in a service station environment, comprising:

an underground storage tank;

a conduit having an inlet port and an outlet port, wherein said outlet port is connected to said underground storage tank;

a fuel dispenser, comprising:

a nozzle,

a hose connected to said nozzle;

a fuel delivery line that couples to said hose and to said underground storage tank to deliver said liquid fuel through said hose and nozzle to the vehicle fuel tank;

a vapor pump;

a vapor return line contained within said hose that connects to said inlet port of said conduit;

a valve connected inline to said conduit, said valve having a valve inlet and a valve outlet;

a heat exchanger connected inline to said conduit downstream said valve outlet;

an electronic controller electrically coupled to said valve to control the opening of said valve and electronically coupled to said vapor pump to activate said vapor pump, wherein said electronic controller is adapted to open said valve and activate said vapor pump to recover vapor expelled from the vehicle tank during refueling to pass the vapor through said inlet port and through said heat exchanger to cool the vapor and return the cooled vapor through said outlet port to said underground storage tank; and

a heat exchanger temperature sensor that measures the temperature of the vapor leaving said heat exchanger and inputs the temperature into said electronic controller.

73. (Currently Amended) The system of claim ~~69~~ 71, further comprising an ullage temperature sensor that measures the temperature of said storage tank and inputs the ulllage temperature into said electronic controller.

74. (Currently Amended) The system of claim ~~69~~ 71, further comprising an ambient temperature sensor that measures the temperature of the outside air and inputs the ambient temperature into said electronic controller.

75. (Currently Amended) The system of claim ~~69~~ 71, further comprising an ambient pressure sensor that measures the pressure of the outside air and inputs the ambient pressure into said electronic controller.

76-77. (Canceled).

78. (Currently Amended) ~~The system of claim 77,~~ A volatile liquid underground storage tank pressure reduction system for reducing the volume of vapor recovered during the refueling of a vehicle tank and returned to an underground storage tank in a service station environment, comprising:

an underground storage tank;

a conduit having an inlet port and an outlet port, wherein said outlet port is connected to said underground storage tank;

a fuel dispenser, comprising:

a nozzle,

a hose connected to said nozzle;

a fuel delivery line that couples to said hose and to said underground storage tank to deliver said liquid fuel through said hose and nozzle to the vehicle fuel tank;

a vapor pump;

a vapor return line contained within said hose that connects to said inlet port of said conduit;

a valve connected inline to said conduit, said valve having a valve inlet and a valve outlet;

a heat exchanger connected inline to said conduit downstream said valve outlet;

an electronic controller electrically coupled to said valve to control the opening of said valve and electronically coupled to said vapor pump to activate said vapor pump, wherein said electronic controller is adapted to open said valve and activate said vapor pump to recover vapor

expelled from the vehicle tank during refueling to pass the vapor through said inlet port and through said heat exchanger to cool the vapor and return the cooled vapor through said outlet port to said underground storage tank; and

a storage tank pressure sensor that measures the pressure of said storage tank and inputs said storage tank pressure into said electronic controller;

wherein said electronic controller opens said valve and activates said pump if said storage tank pressure is greater than a predetermined pressure threshold and said electronic controller additionally activates said heat exchanger if said storage tank pressure is greater than a preset pressure threshold.

79. (Currently Amended) ~~The system of claim 76, further comprising~~ A volatile liquid underground storage tank pressure reduction system for reducing the volume of vapor recovered during the refueling of a vehicle tank and returned to an underground storage tank in a service station environment, comprising:

an underground storage tank;

a conduit having an inlet port and an outlet port, wherein said outlet port is connected to said underground storage tank;

a fuel dispenser, comprising:

a nozzle,

a hose connected to said nozzle;

a fuel delivery line that couples to said hose and to said underground storage tank to deliver said liquid fuel through said hose and nozzle to the vehicle fuel tank;

a vapor pump;

a vapor return line contained within said hose that connects to said inlet port of said conduit;

a valve connected inline to said conduit, said valve having a valve inlet and a valve outlet;

a exchanger connected inline to said conduit downstream said valve outlet;

an electronic controller electrically coupled to said valve to control the opening of said valve and electronically coupled to said vapor pump to activate said vapor pump, wherein said electronic controller is adapted to open said valve and activate said vapor pump to recover vapor

expelled from the vehicle tank during refueling to pass the vapor through said inlet port and through said heat exchanger to cool the vapor and return the cooled vapor through said outlet port to said underground storage tank;

a storage tank pressure sensor that measures the pressure of said storage tank and inputs said storage tank pressure into said electronic controller;

a fuel temperature sensor that measures the temperature of the volatile liquid in said storage tank and inputs said fuel temperature into said electronic controller[,]; and

an ambient temperature sensor that measures the temperature of the outside air, wherein said electronic controller also determines if the fuel temperature is greater than the ambient temperature by a preset temperature value and opens said valve and activates said pump if said fuel temperature is greater than said preset temperature value.

80. (Original) The system of claim 79, wherein said electronic controller additionally activates said heat exchanger.

81. (Currently Amended) ~~The system of claim 76, further comprising~~ A volatile liquid underground storage tank pressure reduction system for reducing the volume of vapor recovered during the refueling of a vehicle tank and returned to an underground storage tank in a service station environment, comprising:

an underground storage tank;

a conduit having an inlet port and an outlet port, wherein said outlet port is connected to said underground storage tank;

a fuel dispenser, comprising:

a nozzle,

a hose connected to said nozzle;

a fuel delivery line that couples to said hose and to said underground storage tank to deliver said liquid fuel through said hose and nozzle to the vehicle fuel tank;

a vapor pump;

a vapor return line contained within said hose that connects to said inlet port of said conduit;

a valve connected inline to said conduit, said valve having a valve inlet and a valve outlet;

a heat exchanger connected inline to said conduit downstream said valve outlet;

an electronic controller electrically coupled to said valve to control the opening of said valve and electronically coupled to said vapor pump to activate said vapor pump, wherein said electronic controller is adapted to open said valve and activate said vapor pump to recover vapor expelled from the vehicle tank during refueling to pass the vapor through said inlet port and through said heat exchanger to cool the vapor and return the cooled vapor through said outlet port to said underground storage tank;

a storage tank pressure sensor that measures the pressure of said storage tank and inputs said storage tank pressure into said electronic controller;

a fuel temperature sensor that measures the temperature of the volatile liquid and inputs said fuel temperature into said electronic controller[,]; and

an ullage temperature sensor that measures the temperature of said ullage and inputs said ullage temperature into said electronic controller, wherein said electronic controller closes said valve and deactivates said pump if said storage tank pressure is less than a pressure threshold, and either said fuel temperature is not greater than a temperature preset value, said fuel temperature is not greater than said ullage temperature, or said difference in temperature between said fuel temperature and said ullage temperature is not greater than or equal to a second temperature preset value.

82-100. (Canceled).

101. (Currently Amended) ~~The method of claim 99, further comprising the steps of:~~ A method of reducing the volume of recovered vapors captured during the refueling of a vehicle, which are returned to an underground storage tank, comprising the steps of:

recovering vapors expelled from the vehicle during refueling;

passing said vapors through a vapor return passage and through a heat exchanger to cool said vapors;

returning said vapors to the underground storage tank;

opening a valve inline to said vapor return passage to allow said vapors to pass through said heat exchanger instead of directly to the underground storage tank;

measuring the pressure of the underground storage tank;

measuring the temperature of the volatile liquid stored in the storage tank; and

performing the step of passing said vapors through said heat exchanger if the temperature of the volatile liquid is less than the ambient temperature by more than a temperature preset value and if the pressure of the underground storage tank is above a pressure threshold.

102. (Original) The method of claim 101, further comprising the steps of:

measuring the temperature of the ullage;

measuring the temperature of the vapors exiting said heat exchanger; and

performing said step of opening said valve and drawing vapors through said conduit if the temperature of the ullage is greater than the temperature of vapors exiting said heat exchanger by a temperature preset value.

103. (Currently Amended) ~~The method of claim 98, further comprising the steps of:~~ A method of reducing the volume of recovered vapors captured during the refueling of a vehicle, which are returned to an underground storage tank, comprising the steps of:

recovering vapors expelled from the vehicle during refueling;

passing said vapors through a vapor return passage and through a heat exchanger to cool said vapors;

returning said vapors to the underground storage tank;

measuring the pressure of the underground storage tank;

measuring the temperature of volatile liquid stored in the underground storage tank; and

performing said step of opening said valve and said step of ~~circulating~~ passing the vapors if the temperature of the volatile liquid is greater than the ambient temperature by more than a preset temperature value and if the pressure of the underground storage tank is above a preset pressure threshold.

104. (Original) The method of claim 103, wherein said step of circulating said vapors further comprises the step of creating a vacuum inside said conduit.

105. (Currently Amended) ~~The method of claim 98, further comprising the steps of:~~ A method of reducing the volume of recovered vapors captured during the refueling of a vehicle, which are returned to an underground storage tank, comprising the steps of:

recovering vapors expelled from the vehicle during refueling;

passing said vapors through a vapor return passage and through a heat exchanger to cool said vapors;

returning said vapors to the underground storage tank;

measuring the temperature of the volatile liquid in the underground storage tank; and

closing said valve if the temperature of the volatile liquid is not greater than a temperature preset value.

106. (Original) The method of claim 105, further comprising the steps of:

measuring the temperature of the ullage of the underground storage tank; and

closing said valve if the temperature of the volatile liquid is not greater than the temperature of the ullage.

107. (Original) The method of claim 106, further comprising the steps of:

comparing the difference in temperature between the temperature of the volatile liquid and the temperature of the ullage;

closing said valve if the temperature of the volatile liquid is greater than the temperature of the ullage, but not by an amount greater than a temperature preset value.

108. (Original) The method of claim 107, further comprising the steps of:

measuring the ambient temperature;

comparing the temperature of the volatile liquid to the ambient temperature; and

closing said valve if the temperature of the volatile liquid is not greater than the ambient temperature.

109. (Original) The method of claim 108, further comprising the step of activating a heat exchanger coupled inline to said conduit if difference between the temperature of the volatile liquid and the ambient temperature is not greater than a temperature preset value.

110. (Original) The method of claim 108, further comprising the step of activating a heat exchanger coupled inline to said conduit wherein said heat exchanger cools said vapors if the temperature of the volatile liquid is greater than the ambient temperature and the difference between the temperature of the volatile liquid and the ambient temperature is greater than a temperature preset value.

111. (Original) The method of claim 110, further comprising the steps of:

measuring the temperature of the vapors exiting said heat exchanger; and

opening said valve if the temperature of the vapors exiting said heat exchanger is less than the temperature of the ullage, and the difference in temperature between the temperature of the vapors exiting said heat exchanger and the temperature of the ullage is greater than a temperature preset value.